

Pat. Appl. 10/631,881  
Non-final Office Action mailed August 9, 2005  
Response transmitted September 21, 2005

Attorney Docket 9046/20

### SUMMARY

1. Claims 1-25 and 27-44 are pending in the Application. The Examiner is thanked for withdrawing the previous rejections under 35 U.S.C. § 102(b) and under 35 U.S.C. § 103(a). The present Office Action rejects all claims under 35 U.S.C. § 103(a) in view of several references and under 35 U.S.C. § 112.

2. Claims 1-18, 20-23, and 30-44 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter the inventor regards as the invention. The claim terms "low frequency" and "higher frequency" are deemed indefinite. Applicants traverse the rejection. The term "low" is indeed definite, as is the term "higher frequency," and as the rejection points out, the specification gives an example of 3 Hz as a low frequency.

The terms low frequency and higher frequency are relative, in the sense that a low frequency will always be lower than a higher frequency. One can set the boundary between the "low frequency" and the "higher frequency" as desired, the only requirement being that the higher frequency always be higher than the lower frequency. Thus, a person of ordinary skill will be able to determine the scope of the invention by noting that there is a frequency at which the lamp sequence changes from the first flashing sequence at a low frequency of switch closure to the second flashing sequence at a higher frequency. *ZMI Corp. v. Cardiac Resuscitator Corp.*, 2 U.S.P.Q.2d 1985, 1989 (D. Or. 1987) (holding that relative language is permissible unless a person of ordinary skill in the art would not be able to determine what is infringing and what is non-infringing).

Nevertheless, Applicants have amended Claims 1, 20, 30 and 38, and several dependent claims, to make it clear that the low frequency and higher frequency are relative terms. The fact that a claim uses relative terminology does not render the claim indefinite. M.P.E.P. 2173.05(b). Because the scope of the claims is clear, a low frequency as compared to a higher frequency, Applicants have complied with 35 U.S.C. § 112, second paragraph. The Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. § 112, second paragraph.

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3. Claims 1-5, 7-11, 13-15, 17-25, and 27-44 are rejected as unpatentable under 35 U.S.C. § 103(a) in view of U.S. Pat. No. 5,457,900 to Avery Roy ("Roy") in view of U.S. Pat. No. 6,776,498 to Kwok Yeung ("Yeung"). The rejection admits that Roy does not disclose a switch operating at a high or low frequency, but that Yeung teaches a switch operating at the threshold speed or operation frequency. The rejection states that it would have been obvious to combine Yeung's switch with Roy's circuit "in order to open or close the switch according to the speed of a wearer of lighted footwear."

Applicants traverse the rejection on the grounds that there is insufficient motivation to combine the references, and because the combined references do not teach or suggest the inventions recited in Applicants' claims.

In the first place, Roy does indeed teach a switch that operates at a low frequency and a higher frequency. See Roy, cols. 1-2, stating that the controller calculates the velocity of the footwear as it moves through a stepping motion. Thus, Roy uses the frequency of steps to calculate a velocity of the footwear. Depending on the velocity, the controller then determines the rate at which the LEDs are to be strobed. Abstract of Roy, lines 3-9. Thus, Roy teaches a switch that operates at a variable frequency, and uses the variability of the frequency to determine the rate at which a given message or character is flashed. Thus, there is no motivation to seek the switch of Yeung, which adds very little to the disclosure of Roy. Yeung teaches only a switch operating at a variable rate and does not teach or suggest an alphanumeric display. Roy teaches an alphanumeric display, but does not teach or suggest changing the display at different velocities or stepping speeds; Roy only teaches flashing the display at a rate that depends on the wearer's velocity or stepping rate.

Independent Claim 1 is thus allowable because Roy does not teach or suggest flashing a plurality of lamps in a first sequence when the switch closes at a relatively low frequency and a second sequence when the switch closes at a relatively higher frequency. Claim 20 is allowable for a similar reason, Roy does not teach or suggest that a first message is displayed when the switch is closed at a relatively low frequency and a second message is displayed when the switch is closed at a relatively higher

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frequency. Claim 24 is allowable because Roy does not teach or suggest that the first and second pluralities of batteries are connected to different voltages in sequence.

Claim 30 recites that "when the inertia switch closes at a relatively low frequency the controller activates the first set of lamps and when the inertia switch closes at a relatively higher frequency, the controller activates the second plurality of lamps." Claim 38 recites that "when the inertia switch closes at a relatively low frequency the controller activates the plurality of lamps to display a first pattern, and when the inertia switch closes at a relatively higher frequency, the controller activates the plurality of lamps to display a second pattern." By the same reasoning advanced above for Claims 1, 20, and 24, Claims 30 and 38 are allowable because Roy does not teach or suggest, and the combination of Roy and Yeung does not teach or suggest, activating a first and second pluralities of lamps, or first and second patterns, based on the frequency of closing an inertia switch.

Accordingly, Roy and Yeung do not teach or suggest independent Claims 1, 20, 24, 30, or 38, or claims depending from them, including Claims 2-5, 7-11, 13-15, 17-19, 21-23, 25, 27-29, 31-37, and 39-44. The Examiner is respectfully requested to withdraw the rejections of Claims 1-5, 7-11, 13-15, 17-25, and 27-44.

4. Claim 6 is rejected under 35 U.S.C. § 103(a) in view of U.S. Pat. No. 5,457,900 to Avery Roy ("Roy") and further in view of U.S. Pat. No. 5,615,111 to Erik Raskas et al. ("Raskas"). Claim 6 is allowable because it depends from allowable Claim 5.

5. Claims 12 and 16 are rejected under 35 U.S.C. § 103(a) in view of U.S. Pat. No. 5,457,900 to Avery Roy ("Roy") and further in view of U.S. Pat. No. 6,525,487 to Meng Pi Wei ("Wei"), as applied to Claim 1. The rejection states that Wei teaches two batteries and two pluralities of LEDs connected to two different voltages in sequence (emphasis added). Office Action, p. 4, lines 1-3. Applicants traverse the rejection. Claims 12 and 16 have been amended to correct their antecedent bases from Claim 1.

As best seen in Wei's Fig. 3, Wei shows only that LEDs L1 and L2 are connected to V1 (one battery), while LED L3 is connected to V2 (two batteries). Wei teaches that

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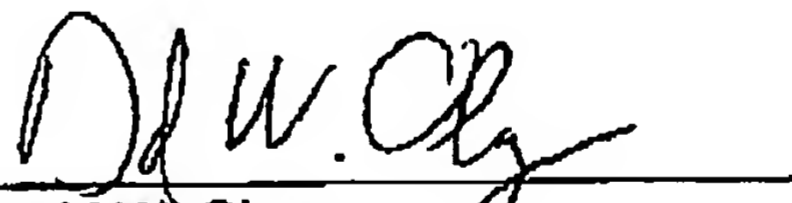
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there is a clock signal and that "the LEDs have a flashing frequency synchronous with the clock signal." Wei, col. 2, lines 51-55 and 63-65. "The anode of the first battery V1 is connected to the anode of the red LED L1 and the anode of the green LED 42" and "the anode of the second battery V2 is connected to the anode of the blue LED 43." Wei, col. 2, lines 10-14. In Wei, different LEDs operate at different voltages, and do not change from one voltage to another. Thus, there is no teaching or suggestion of applying two voltages to an LED in sequence, i.e., first one voltage and then another voltage.

Applicants submit that Wei does not teach or suggest connecting a plurality of LEDs to two different voltages in the first and second sequences as recited in Claims 12 and 16. Accordingly, the combination of Roy and Wei does not teach the limitations of Claim 12 and 16, which are therefore allowable. The Examiner is respectfully requested to withdraw the rejections of Claims 12 and 16.

6. Applicants submit that Claims 1-25 and 27-44 are allowable for the reasons discussed above. Applicants request the Examiner is withdraw the rejections and to issue a notice of allowance for this application. The Examiner is invited to call the undersigned at the below-listed number if a phone call would expedite allowance or be of use to the Examiner.

Respectfully submitted,



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